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10/092,703	03/05/2002	Jin Yong Kim	2080-3-69	2493

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EXAMINER

AGUSTIN, PETER VINCENT

ART UNIT PAPER NUMBER

2652

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/092,703

Applicant(s)

KIM, JIN YONG

Examiner

Peter Vincent Agustin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Korea on March 9, 2001. It is noted, however, that applicant has not filed a certified copy of the 01-12149 application as required by 35 U.S.C. 119(b).

Specification

2. The disclosure is objected to because of the following informalities:

Page 7, line 20: "different" should be --a different--.

Page 8, line 9: "every" should be --in every--.

Page 9, line 4: "real-only" should be --read-only--.

Appropriate correction is required.
3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

4. Claims 1-10, 12-20 & 22 are objected to because of the following informalities:

Claim 1, line 5: "a predetermined" should be --predetermined--.

Claim 5, line 3: "type" should be --type areas--.

Claim 9, line 3: "user" should be --a user--.

Claim 12, line 19: "are" should be --area--.

Claim 13, line 2: "first data type" should be --first data type area--.

Claim 16, line 2: "the second" should be --a plurality of second--.

Claim 16, line 2: "area" should be --areas--.

Claim 17, line 3: "user" should be --a user--.

Claim 19, line 8: The examiner suggests replacing "behind" with --after--.

Claim 20, line 1: "allocated" should be --allocated at--.

Claim 22, line 8: "prevent" should be --preventing--.

Claims 2-10, 13-18 & 20 are dependent upon objected base claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-6 & 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Iitsuka (US 5,414,686).

In regard to claim 1, Iitsuka discloses a read-only recording medium (figure 5A) containing recorded data, comprising: at least one first data type area (3 & 4) having a first data type ("DATA" of element 3) that is pre-recorded thereon; and a plurality of second data type areas (4) placed at predetermined intervals in the first data type area, wherein the plurality of second data type areas do not contain the first data type.

In regard to claim 2, Iitsuka discloses that the first data type area is a recording area (i.e., an area where "DATA" is recorded).

In regard to claim 3, Iitsuka discloses that the first data type is a real data ("DATA" of element 3).

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In regard to claim 4, Iitsuka discloses that the second data type area is a waste area (i.e., an area containing data other than regular "DATA" of element 3, which in this case is an "ERROR DETECTING & CORRECTING CODE").

In regard to claim 5, Iitsuka discloses that each one of the plurality of second data type areas is placed at every ECC block (as shown by element 4) of the first data type areas. The area covered by elements 3 & 4 is read as one ECC block.

In regard to claim 6, Iitsuka discloses that a size of each second data type area (column 4, lines 30-35: "8 bytes") is equal to that of a header information area reserved in a rewritable DVD-RAM. It is well-known in the art that a header information area reserved in a rewritable DVD-RAM is 8-bytes in length (see, for example, Mine (US 6,182,240) column 3, lines 16-25).

In regard to claim 8, Iitsuka inherently discloses that a plurality of pre-pits of same length are formed in the plurality of second data type areas. It is well-known in the art that read-only recording mediums are formed with pre-pits in the regions for error detection/correction. Therefore, since the size of each second data type area is 8 bytes, it follows that the pre-pits also have the same length.

In regard to claim 9, Iitsuka discloses that a size of each second data type area (column 4, lines 30-35: "8 bytes") is equal to that of a non-user data area allocated intermittently in a user data area of a rewritable recording medium. It is well-known in the art that a non-user data area of a rewritable recording medium is 8-bytes in length (see, for example, Mine (US 6,182,240) column 3, lines 16-25).

In regard to claim 10, Iitsuka discloses that signals produced from said plurality of pre-pits are used for servo-control (see figure 2, elements 66 & 77).

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In regard to claim 11, Iitsuka discloses a read-only recording medium (figure 5A), comprising at least one waste area (i.e., an area containing data other than regular "DATA" of element 3, which in this case is "ERROR DETECTING & CORRECTING CODE" of element 4) ensuring compatibility with a RAM medium (inherent, see note below), which is a counterpart of the read-only recording medium, in data reproduction. It should be noted that compatibility with a RAM medium is the result of inserting waste areas between the real data, as described by the applicant in the instant specification (see page 4, last line thru page 5, line 6). Therefore, the claimed "ensuring compatibility with a RAM medium" would be the inherent result of the specifics of claim 11 (see also claim 1 rejection above).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iitsuka.

For a description of Iitsuka, see the rejection above. However, in regard to claim 7, Iitsuka does not explicitly disclose that a size of each second data type area is equal to that of a linking loss area reserved in a rewritable DVD-RW. Iitsuka discloses that a size of each second data type areas is 8 bytes (column 4, lines 30-35).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have chosen a size equal to that of a linking loss area reserved in a rewritable DVD-RW for each of the second data type areas of Iitsuka because applicant has not disclosed

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that a size equal to that of a linking loss area reserved in a rewritable DVD-RW provides an advantage, is used for a particular purpose, or solves a stated problem, and one of ordinary skill in the art would have expected applicant's invention to perform equally well with either the 8 bytes taught by Iitsuka or the claimed size equal to that of a linking loss area reserved in a rewritable DVD-RW because choosing any of these two sizes would have been an obvious matter of design choice.

9. Claims 12-14 & 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iitsuka in view of Takamatsu et al. (hereafter Takamatsu) (US 4,792,917).

In regard to claim 12, Iitsuka discloses a reproduction device (figure 2) for reproducing data pre-recorded on a read-only recording medium (50), the reproduction device comprising: an optical pickup device (62) for reading recorded data on the read-only recording medium; a controller (77) connected to and controlling the optical pickup device; a signal processor (69) connected to the controller for reproducing the recorded data in a recognizable form; wherein the controller: reads recorded data (inherent) from a first one of a first data type area (figure 5A, elements 3 & 4) having a first data type ("DATA" of element 3) that is pre-recorded in the read-only recording medium; detects (inherent) a second data type area (4) containing a second data type ("ERROR DETECTING & CORRECTING CODE") in the read-only recording medium; and reads a second one of the first data type area. However, Iitsuka remains silent to whether the controller: stores the first data type read from the first one of the first data type area in a memory; prevents storing of the second data type in the memory; and stores the first data type read from the second one of the first data type area in the memory.

Takamatsu discloses storing a first data type (figure 3b, element Da) read from a first one of a first data type area (371) in a memory; prevents storing of a second data type (DEFECT: 311) in the memory; and stores a first data type (Db) read from a second one of the first data type area (372) in the memory (see column 5, lines 15-18). It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to have provided the controller of Iitsuka with the functions taught by Takamatsu, the motivation being to skip unwanted sections of the disc, thereby improving system performance (column 2, lines 61-64).

Furthermore, in regard to claim 13, Iitsuka discloses that the second data type area is placed at every ECC block (as shown by element 4) of the first data type areas. The area covered by elements 3 & 4 is read as one ECC block.

Furthermore, in regard to claim 14, Iitsuka discloses that a size of the second data type area (column 4, lines 30-35: "8 bytes") is equal to that of a header information area reserved in a rewritable DVD-RAM. It is well-known in the art that a header information area reserved in a rewritable DVD-RAM is 8-bytes in length (see, for example, Mine (US 6,182,240) column 3, lines 16-25).

Furthermore, in regard to claim 16, Iitsuka inherently discloses that a plurality of pre-pits of same length are formed in a plurality of second data type areas. It is well-known in the art that read-only recording mediums are formed with pre-pits in the regions for error detection/correction. Therefore, since the size of each second data type area is 8 bytes, it follows that the pre-pits also have the same length.

Furthermore, in regard to claim 17, Iitsuka discloses that a size of each second data type area (column 4, lines 30-35: "8 bytes") is equal to that of a non-user data area allocated

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intermittently in a user data area of a rewritable recording medium. It is well-known in the art that a non-user data area of a rewritable recording medium is 8-bytes in length (see, for example, Mine (US 6,182,240) column 3, lines 16-25).

Furthermore, in regard to claim 18, Iitsuka discloses that signals produced from said plurality of pre-pits are used for servo-control (see figure 2, elements 66 & 77).

In regard to claim 19, Iitsuka discloses a method (inherent from the apparatus of figure 2) of reproducing data stored in a read-only recording medium (50), comprising the step of: (a) reproducing data from the read-only recording medium (performed by element 51). Furthermore, in regard to claim 20, Iitsuka discloses a waste area (i.e., an area containing data other than regular "DATA" of figure 5A, element 3, which in this case is an "ERROR DETECTING & CORRECTING CODE") allocated at every ECC block (as shown by element 4) of the stored data. The area covered by elements 3 & 4 is read as one ECC block. However, in regard to claim 19, Iitsuka remains silent regarding the steps of: (b) checking whether or not the reproduced data is invalid data from one of a plurality of waste areas which are allocated at predetermined intervals in the read-only recording medium; and (c) removing the invalid data and outputting the reproduced data before and after the invalid data in succession.

Takamatsu discloses: checking whether or not reproduced data (figure 3b, element 381) is invalid data (DEFECT: 311, 312, etc.) from one of a plurality of waste areas which are allocated at predetermined intervals; and removing the invalid data and outputting (inherent) the reproduced data before (Da) and after (Db) the invalid data in succession (see column 5, lines 15-18). It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to have provided the steps taught by Takamatsu to the method of Iitsuka, the

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motivation being to skip unwanted sections of the disc, thereby improving system performance (column 2, lines 61-64).

In regard to claim 21, Iitsuka discloses a method (inherent from the apparatus of figure 2) of reproducing data stored in a read-only recording medium (50), comprising the step of: (a) reproducing data from the read-only recording medium (performed by element 51). However, Iitsuka remains silent regarding the steps of: (b) checking whether or not a current reproducing position is at one of a plurality of waste areas which are allocated at predetermined intervals in the read-only recording medium; and (c) skipping the waste area without reproducing arbitrary signals of the waste area if the current reproducing position is at the waste area.

Takamatsu discloses: checking whether or not a current reproducing position (figure 3b, element 381) is at one of a plurality of waste areas (DEFECT: 311, 312, etc.) which are allocated at predetermined intervals; and skipping the waste area without reproducing arbitrary signals of the waste area if the current reproducing position is at the waste area (see column 5, lines 15-18). It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to have provided the steps taught by Takamatsu to the method of Iitsuka, the motivation being to skip unwanted sections of the disc, thereby improving system performance (column 2, lines 61-64).

In regard to claim 22, Iitsuka discloses a method (inherent from the apparatus of figure 2) of reproducing data in a read-only recording medium (50), comprising the steps of: reading a first one of a first data type area (figure 5A, elements 3 & 4) having a first data type ("DATA" of element 3) that is pre-recorded thereon; detecting a second data type area (4) containing a second data type ("ERROR DETECTING & CORRECTING CODE"); and reading a second one of the

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first data type area. However, Iitsuka remains silent regarding the steps of: storing the first data type read from the first one of the first data type area in a memory; preventing storing of the second data type in the memory; and storing the first data type read from the second one of the first data type area in the memory.

Takamatsu discloses storing a first data type (figure 3b, element Da) read from a first one of a first data type area (371) in a memory; preventing storing of a second data type (DEFECT: 311) in the memory; and storing a first data type (Db) read from a second one of the first data type area (372) in the memory (see column 5, lines 15-18). It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to have provided the steps of Takamatsu to the method of Iitsuka, the motivation being to skip unwanted sections of the disc, thereby improving system performance (column 2, lines 61-64).

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iitsuka & Takamatsu as applied to claim 12 above.

For a description of Iitsuka & Takamatsu, see the rejection above. However, in regard to claim 15, Iitsuka does not explicitly disclose that a size of the second data type area is equal to that of a linking loss area reserved in a rewritable DVD-RW. Iitsuka discloses that a size of the second data type area is 8 bytes (column 4, lines 30-35).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have chosen a size equal to that of a linking loss area reserved in a rewritable DVD-RW for the second data type area of Iitsuka because applicant has not disclosed that a size equal to that of a linking loss area reserved in a rewritable DVD-RW provides an advantage, is used for a particular purpose, or solves a stated problem, and one of ordinary skill in the art

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would have expected applicant's invention to perform equally well with either the 8 bytes taught by Iitsuka or the claimed size equal to that of a linking loss area reserved in a rewritable DVD-RW because choosing any of these two sizes would have been an obvious matter of design choice.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sako et al. (US 4,907,215) discloses in figure 2 a recordable medium having data areas and servo signal areas provided alternately.

Sako et al. (US 5,216,656) discloses a method for recording a CD-RAM which is compatible with a conventional CD recording format while allowing fast accessing.

Takayama et al. (US 5,313,340) discloses a magnetic disk with tracks having alternating control and data regions.

Lee et al. (EP 1052639) disclose a recording medium storing linking type information, wherein linking areas are preferably 2 kbytes in size.

Kageyama et al. (US 6,392,968) discloses a method for reproducing data wherein it is judged whether contiguous recording is possible.

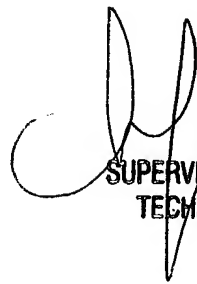
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Vincent Agustin whose telephone number is 703-305-8980. The examiner can normally be reached on Monday-Friday 9:30-5:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 703-305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peter Vincent Agustin
Art Unit 2652
September 24, 2004


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9/28/04